

# Work Order ID 109974

December-11-13 8:39:18 AM

\*109974\*

Page 1

Item ID: D1038-58B

Revision ID:

Item Name: Avionics Fastener Rail

Start Date: 13/12/2013 Start Qty: 60.00

Required Date: 20/12/2013 Req'd Qty: 60.00

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

\*N9000040100\*

Setup Start

\*NS1\*

Stop

\*NS2\*

Cust Item ID:

Customer:

Run Start

\*NR1\*

Stop

\*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

Draw Nbr

Revision Nbr

D1038

Rev B

\*SP label only stores

100

0.00

\*100\*

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Create white labels and bag them

ML 5 14-01-31

110

0.00

\*110\*

BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut extrusion D2023 to length 21.81" (+0.06/-0.00)

60 13/12/11

120

0.00

\*120\*

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1- Mill as per Folio FA783 Rev: & Dwg D1038 Rev:

2-Deburr per dwg D1038

60 13/12/12

# Work Order ID 109974

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\*109974\*

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Item ID: D1038-58B Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Avionics Fastener Rail  
 Start Date: 13/12/2013 Start Qty: 60.00 \*60\* Cust Item ID:  
 Required Date: 20/12/2013 Req'd Qty: 60.00 \*60\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description                | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp    |
|--------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|-------------------|
| 130                            | QC2- Inspect parts off machine FAI/FAIB | 0.00                 |         |        |              | 60            | Ø             |                  | MA 13/12/17       |
| *130*                          |   |                      |         |        |              |               |               |                  |                   |
| QC                             | Memo                                    | 0.00                 |         |        |              |               |               |                  |                   |
| Quality Control                |   |                      |         |        |              |               |               |                  |                   |
| 140                            | QC8- Inspect parts - second check       | 0.00                 |         |        |              | 60            | Ø             |                  | DAS<br>40<br>9-89 |
| *140*                          |   |                      |         |        |              |               |               |                  |                   |
| QC                             | Memo                                    | 0.00                 |         |        |              |               |               |                  | 13/12/19          |
| Quality Control                |   |                      |         |        |              |               |               |                  |                   |
| 150                            | Small Fab                               | 0.00                 |         |        |              | 60x           |               |                  | DAS<br>36<br>9-89 |
| *150*                          |   |                      |         |        |              |               |               |                  |                   |
| Small Fab                      | Memo                                    | 0.00                 |         |        |              |               |               |                  | 14/01/08          |
| Small Fab                      | Debur                                   |                      |         |        |              |               |               |                  |                   |

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Item ID: D1038-58B Accept \*N900040100\* Setup Start \*NS1\*  
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 Item Name: Avionics Fastener Rail  
 Start Date: 13/12/2013 Start Qty: 60.00 \*60\* Cust Item ID:  
 Required Date: 20/12/2013 Req'd Qty: 60.00 \*60\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID                            | Operation<br>Description  | Set Up/<br>Run Hours          | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty  | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|---|---|-------------------------------|---------|--------|--------------|----------------|---------------|------------------|----------------|
| 160<br>*160*<br>QC<br>Quality Control                     | QC5- Inspect part completeness to step on W/O<br><br>Memo   | 0.00<br>27<br>9.89<br>14/1/18 |         |        |              | 60<br>can      |               |                  |                |
| 165<br>*165*<br>HandFinish<br>Hand Finishing              | <del>Memo<br/>Clean rail from all marking using acid etch and scotch brite before sending to get anodize</del>  | 0.00<br>27<br>9.89<br>2/1/18  |         |        |              |                |               |                  |                |
| 170<br>*170*<br>Outsource4<br>Outsource process - Anodize | Outsource process-Anodize per QSI017 4.1.10.1<br><br>Memo<br>Issue P/O: 22580<br>Black Anodize as per Dwg D1038 | 0.00<br>0.00                  |         |        |              | CY 14/10/11/10 |               | (60)             |                |



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Item ID: D1038-58B Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
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 Start Date: 13/12/2013 Start Qty: 60.00 \*60\* Cust Item ID:  
 Required Date: 20/12/2013 Req'd Qty: 60.00 \*60\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description  | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 180                            | Receive & Inspect for Damage & Mat'l Certs  | 0.00                 |         |        |              |               |               |                  |                |
| *180*                          |   |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo  | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      |   |                      |         |        |              |               |               |                  |                |
| 190                            | QC3- Inspect Part Finish  | 0.00                 |         |        |              |               |               |                  |                |
| *190*                          |   |                      |         |        |              |               |               |                  |                |
| QC                             | Memo  | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |   |                      |         |        |              |               |               |                  |                |
| 200                            | Small Fab   | 0.00                 |         |        |              |               |               |                  |                |
| *200*                          |   |                      |         |        |              |               |               |                  |                |
| Small Fab                      | Memo  | 0.00                 |         |        |              |               |               |                  |                |
| Small Fab                      | 1-Stake .050 stainless steel wire per Dwg D1038-58 using DT8389<br>Batch: M128063<br>2-Grind wire flush and deburr<br>3-Clean |                      |         |        |              |               |               |                  |                |

DAS  
26  
9-89

DAS  
36  
9-89

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Item ID: D1038-58B Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Avionics Fastener Rail  
 Start Date: 13/12/2013 Start Qty: 60.00 \*60\* Cust Item ID:  
 Required Date: 20/12/2013 Req'd Qty: 60.00 \*60\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID         | Operation<br>Description  | Set Up/<br>Run Hours            | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp                |
|--|---|---------------------------------|---------|--------|--------------|---------------|---------------|------------------|-------------------------------|
| 210<br>*210*<br>QC<br>Quality Control  | QC5- Inspect part completeness to step on W/O<br><br>Memo   | 0.00 27<br>9.89<br>0.00 14/1/29 |         |        |              | 60<br>Cam     |               |                  |                               |
| 220<br>*220*<br>Packaging<br>Packaging | Packaging<br><br>Memo<br>1-Pack each fastener rail into a cardboard tube<br>2-Roll Part in foam .<br>3-Install red cap at each end and secure with tape.<br>4-Apply white labels to cardboard tubes<br>5-Identify and Stock<br>Location: _____ FG 121 A | 0.00<br>0.00                    |         |        |              | 60x           |               | 14-1-31          | DMS<br>26<br>9-89             |
| 230<br>*230*<br>QC<br>Quality Control  | QC21- Final Inspection - Work Order Release<br><br>Memo   | 0.00<br>0.00                    |         |        |              |               |               |                  | ML9 14-02-03<br>MF<br>14-1-31 |

# Picklist Print

December-11-13 8:39:15 AM

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Work Order ID: 109974

Parent Item: D1038-58B

Start Date: 13/12/2013

Required Date: 20/12/2013

Parent Item Name: Avionics Fastener Rail

Start Qty: 60.00

Required Qty: 60.00

Comments: IPP: E 03.05.02 Reformat; Added label KJ/RF  
IPP Rev:F 06-08-16 Updated Packaging Procedures JLM  
IPP Rev:G 08-09-16 Added Folio # JLM Verified by:EC

| Component Item ID/<br>Item Name   | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|-----------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| D2023<br>Extrusion, Fastener Rail |                        | Manufactured  | No          |                     |                  | 110             | f                  | 619.8500       | 1.903       | 115          |               |                |        |

Location

Loc Qty

Loc Code

MAT006

619.85

21907

619.85

120'

W.P.  
13/12/11

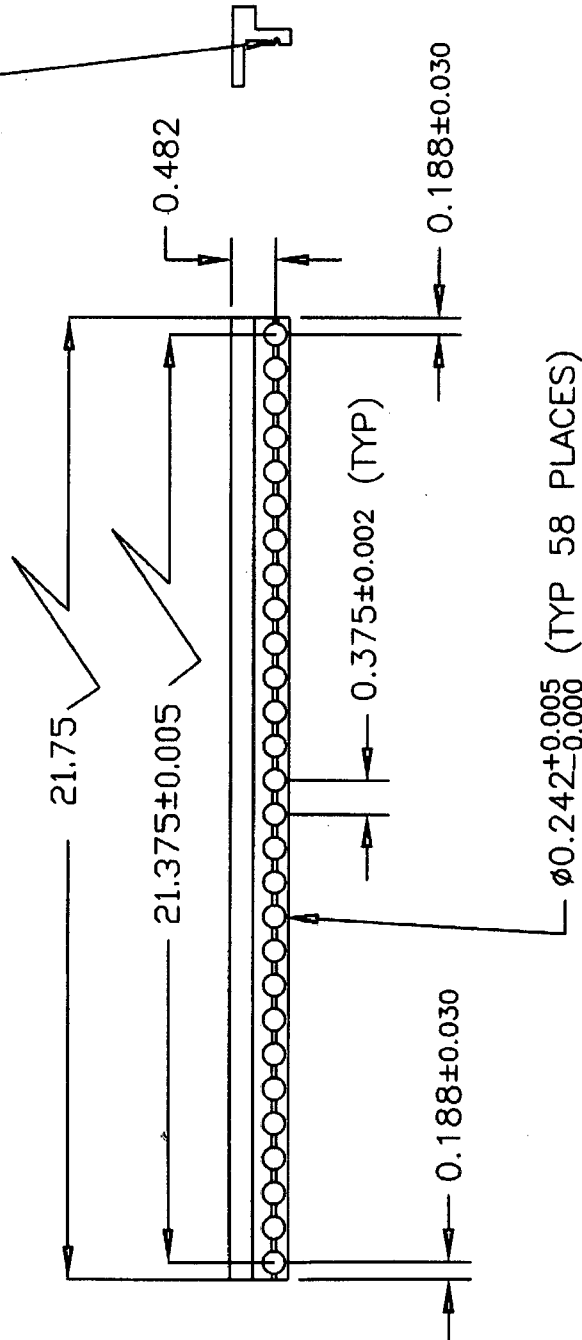
**DART**

|                  |                                 |   |                        |
|------------------|---------------------------------|---|------------------------|
| DESIGN<br>91     | DRAWN BY<br>91                  | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |                        |
| CHECKED<br>91    | APPROVED<br>91                  | DRAWING NO.<br>D1038                              | REV. B<br>SHEET 1 OF 1 |
| DATE<br>05.02.02 | TITLE<br>1/4 TURN FASTENER RAIL | SCALE<br>NTS                                      |                        |
| -                | 91.05.05                        | NEW ISSUE   |                        |
| A                | 04.05.14                        | UPDATE TOLERANCE                                  |                        |
| B                | 05.02.02                        | REDRAWN, UPDATE NOTES                             |                        |

**RELEASED**

05.03.31 91

STAKE  $\phi 0.50$  TYPE 302 STAINLESS  
STEEL WIRE FULL LENGTH  
(REF DART SPEC M302SW.050)



D1038-58 1/4 TURN FASTENER RAIL

- 1) MAKE FROM D2023 EXTRUSION
- 2) FINISH: D1038-58 - NONE
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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731, rue Industrielle Rd.  
PLATING DEPARTMENT  
Rockland, On K4K 1T2  
Canada  
Ph: (613) 446-4544  
Fax: (613) 446-4556

### Pack List

Number: 62831

Date: 17-Jan-14

To

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

Ship To


DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

| Terms   |   | Ship Via           |  |
|---|---|--------------------|--|
| Quantity  | Description   | Rev:               |  |
| 1 lot   | Part: ASST<br>10 PCS 41232-200-002-005 (1.25)<br>10 PCS 41232-200-002-003 (1.35)<br><u>60 PCS D1038-58B (2.25)</u><br>20 PCS D2056 (1.25)<br><br>BLACK ANODIZE<br>MIL-A-8625 TYPE II CLASS 2<br><br>PRICE IS PER PIECE<br>Job: 20140036 | PO: 22580<br>Line: |  |
| <p align="center">Certificate of Conformance</p> <p>A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.</p> <p align="center">ISO 9001 : 2008 REGISTERED<br/>ATG SALES-2010 TERMS APPLY</p> <p>DATE: <u>17/1/14</u></p> <p>CERTIFIED SIGNATURE: <u></u></p> <p>RECEIVER SIGNATURE: _____</p> |   |                    |  |